

REMARKS/ARGUMENTS

Claims 1, 3, and 5-11 and 13-22 are active.

Claim 1 is amended to incorporate Claims 2 and 4.

Claim 22 is supported in original Claim 10.

The remaining amendments are for clarity and to address the Examiner's objection on page 2 pertaining to the Tables provided in Claims 8-10.

No new matter is added.

The claims of this application are to a sandwich structure of two facings and a core such that the core the mineral fibers which make up the core are crimped in a substantially V-shaped profile (see Claim 1). As discussed throughout the specification, e.g., page 2, by providing the core in this manner, there are significant performance characteristics of this sandwich, e.g., improved strength, when compared to structures just like those described in the cited Rasmussen patent (U.S. Patent No. 5,776,580). For at least this reason and the discussion that follows, the claims presented in this application are not anticipated by nor rendered obvious by Rasmussen's patent.

Rasmussen does describe two outer facings and a core of fibers having a lamellar structure (see Figs. 4B, C and D; col. 2, lines 33-39, and col. 5, lines 12-20). The lamellar structure described by a Rasmussen and depicted in those figures is "U-shaped" and thus is different from the substantially V-shaped profile. This difference while allegedly insignificant to the Office does provide significant benefits that were, indeed, unexpected in terms of compression strength and shear strength of the sandwich structure.

As discussed on page 2, line 29 to page 3, line 5 (emphasis added):

Thus, when the fiber distribution has a V-shaped profile, in the manner of chevrons, the Vs extend over the entire width of the lamellae and the tips of the Vs are substantially aligned. The V-shaped profile fiber distribution is arranged in stacked layers over the entire height of a lamella, and consequently over the entire thickness of the core of the sandwich structure.

By combining a plurality of lamellae of the base product, the crimped base product having been cut and turned through 90° in order to provide each lamella with a fiber distribution as described above, it is thus possible to obtain a core which, sandwiched between two facings, **provides unexpected performance characteristics as regards compressive strength and shear strength.**

Further on page 8, lines 21-28 (emphasis added):

Surprisingly, as we will see in the rest of the description, it has turned out that, with this particular crimping arrangement, the performance characteristics of the sandwich structures as regards compressive strength and shear strength are even better than with a standard crimping arrangement, although the latter does provide satisfactory results in the case of sandwich structures produced according to the invention, compared with the current commercial practice of using uncrimped products based on mineral wool obtained by internal centrifugation, which are intended for sandwich structures.

That the claimed substantially V-shaped profile provided unexpected results when compared to Rasmussen's U-shape lamellar structure is apparent from the examples presented in the specification. The product of Rasmussen is much like that depicted in comparative Example 4 of this application (see page 9, lines 15-17, lines 30-34 and the Table presented on page 10).

As apparent from these studies, with the substantially V-shaped profile, the cores (Examples 1 and 1a) "exhibit better performance as regards compressive strength than the structures manufactured from mineral wool using an internal centrifugation process and no crimping than those have a U-profile (Examples 2-4). Further, Examples 1 and 1a have the

advantages of lower density and for an equivalent density (Examples 1 and 4), the shear strength with the substantially V-shaped profile remains as good as that from an uncrimped product, while substantially increasing the compressive strength (see page 12, lines 3-12).

To summarize, (A) the U-shaped lamellar structure of Rasmussen is different from what is claimed here; and (B) the specification provides evidence of unexpected benefits when compared to products just like Rasmussen. As a result the claims are neither anticipated by nor obvious in view of what is described by Rasmussen.

Withdrawal of the rejections citing Rasmussen is requested.

Allowance of the claims is also requested.

Respectfully submitted,

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